IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF TENNESSEE
AT NASHVILLE

TERRY LYNN KING,	)	
	)	
Plaintiff,	)	**CAPITAL CASE**
	)	
v.	)	**Case No. 3:18-cv-01234**
	)	
TONY PARKER, et al.,	)	**JUDGE CAMPBELL**
	)	
Defendants.	)	

MEMORANDUM OF LAW IN SUPPORT OF
DEFENDANTS' MOTION FOR SUMMARY JUDGEMENT

Defendants Tony Parker[1] and Tony Mays file this memorandum of law in support of their Motion for Summary Judgment. Plaintiff, a death-row inmate, brought this lawsuit to "prevent[] Defendants from carrying out Plaintiff King's execution utilizing Tennessee's July 5, 2018 midazolam-based three-drug lethal injection protocol." (D.E. 51, PageID# 2280.) After this Court's Memorandum Opinion (D.E. 70), the sole remaining count of the Amended Complaint is Count Three, which challenges the Protocol under 42 U.S.C. § 1983 on the grounds that it violates the Eighth and Fourteenth Amendments. (D.E. 51, PageID# 2142, 2211). Summary Judgment for Defendants should be granted on this count.

[1] Tony C. Parker recently retired as Commissioner of the Tennessee Department of Correction, and Lisa Helton is currently the Interim Commissioner. *See* TN.gov, Gov. Lee Appoints Lisa Helton as Tennessee Department of Correction Interim Commissioner, https://www.tn.gov/governor/news/2021/11/29/gov--lee-appoints-lisa-helton-as-tennessee-department-of-correction-interim-commissioner.html.

FACTUAL BACKGROUND

Plaintiff was convicted of first-degree murder and sentenced to death for shooting Diana K. Smith in the back of the head and dumping her body in a quarry. *State v. King*, 718 S.W.2d 241, 243-48 (Tenn. 1986) (affirming conviction and sentence direct appeal); *see also King v. State*, 989 S.W.2d 319 (Tenn. 1999) (affirming denial of post-conviction relief), *cert. denied*, 528 U.S. 875 (1999); *King v. Westbrooks*, 847 F.3d 788 (6th Cir. 2017) (affirming denial of federal habeas relief). Plaintiff now seeks to prevent the State of Tennessee from carrying out his sentence by challenging the State's method of executing death-sentenced inmates.

Tennessee's primary method of execution is lethal injection.[2] Tenn. Code Ann. § 40-23-114. The Tennessee Department of Correction ("TDOC") is the agency responsible for adopting the rules and regulations necessary to carry out death sentences, and ultimately, for administering the sentence. *Id.* § 40-23-114(c). All death sentences are carried out at Riverbend Maximum Security Institution ("RMSI"). (Defs' Statement of Undisputed Material Facts ("DSUMF") ¶ 1.) The shifting availability of lethal-injection chemicals has forced TDOC to change its lethal injection procedures several times in the past decade. *See Abdur'Rahman v. Parker*, 558 S.W.3d 606, 616 (Tenn. 2018) *cert. denied sub nom. Zagorski v. Parker*, 139 S. Ct. 11 (2018), and *cert. denied sub nom. Miller v. Parker*, 139 S. Ct. 626 (2018), *and cert. denied*, 139 S. Ct. 1533 (2019).

Prior to 2013, TDOC used a three-drug protocol: sodium thiopental, pancuronium bromide, and potassium chloride. *Workman v. Bredesen*, 486 F.3d 896, 902 (6th Cir. 2007); DSUMF ¶ 2. When sodium thiopental became unavailable, TDOC changed to a single-drug protocol using

[2] If lethal injection is held unconstitutional or lethal-injection chemicals are unavailable, then the method of execution shifts to electrocution. Tenn. Code Ann. § 40-23-114(e). Persons sentenced to death for offenses committed prior to 1999 may also choose to be executed by electrocution. *Id.* § 40-23-114(b).

pentobarbital. *West v. Schofield*, 519 S.W.3d 550, 552 (Tenn. 2017), *cert. denied sub nom. West v. Parker*, 138 S. Ct. 476 (2017), and *cert. denied sub nom. Abdur'Rahman v. Parker*, 138 S. Ct. 647 (2018); DSUMF ¶ 3. When pentobarbital became unavailable, TDOC had to revise the protocol again, and after consulting with experts and other states, adopted a new three-drug protocol using midazolam followed by vecuronium bromide and potassium chloride. *Abdur'Rahman*, 558 S.W.3d at 611, 616; DSUMF ¶¶ 4-7. This three-drug protocol is "the exclusive method of execution by lethal injection in Tennessee." *Abdur'Rahman*, 558 S.W.3d at 612.

The three-drug protocol is laid out in a 104-page document (the "Protocol") that calls for the administration of the lethal-injection chemicals in the following amounts:

- 100 milliliters of a 5 milligram per milliliter solution of midazolam, **a total injection of 500 milligrams of midazolam;**
- 100 milliliters of a 1 milligram per milliliter solution of vecuronium bromide, **a total injection of 100 milligrams of vecuronium bromide;**
- 120 milliliters of a 2 milli-equivalents per milliliter solution of potassium chloride, **a total injection of 240 milli-equivalents of potassium chloride**.

(DSUMF ¶¶ 6, 8, 10.)

Midazolam is a short-acting benzodiazepine that renders the inmate unconscious. (DSUMF ¶¶ 27, 30-32, 35, 37-38, 41, 46.) Vecuronium bromide is a muscle relaxant that aids the execution by immobilizing the inmate and also by stopping the inmate's breathing, thereby hastening death. (DSUMF ¶¶ 107, 109-111, 113-14.) Potassium chloride is an electrolyte solution that blocks heart muscle contraction and causes death by stopping the heart. (DSUMF ¶¶ 115-17.)

The Protocol also contains detailed safeguards that ensure the effective administration of the protocol so that an inmate is executed humanely, and without pain. These safeguards speak to, *inter alia*, (1) qualifications and accreditation of the source pharmacy that supplies the lethal-injection chemicals (DSUMF ¶¶ 190, 198-99, 210, 213); (2) instructions and controls for the transport, storage, preparation, and disposal of lethal-injection chemicals (DSUMF ¶¶ 142, 192-93, 198, 213, 217, 220, 222, 224, 233, 235, 243, 255-58, 261-62, 272); (3) selection and training of members of the Execution Team[3] (DSUMF ¶¶ 135, 137-38, 143, 145, 147, 153); (4) procedures for preparing the inmate for execution, including the process by which qualified personnel establish intravenous access prior to the injection of chemicals (DSUMF ¶¶ 158, 171, 173, 175, 176, 257-58); (5) consciousness checks of the inmate to ensure that the inmate has been rendered unconscious (DSUMF ¶¶ 121-23); and (6) contingency procedures and backup chemicals to be used as a failsafe. (DSUMF ¶¶ 158, 176, 257-58.)

Plaintiff challenges Tennessee's current three-drug Protocol on its face (DSUMF ¶ 9),[4] claiming it violates the Eighth Amendment as applied to the States through the Fourteenth Amendment. *See* D.E. 51, PageID# 2211; *Glossip v. Gross*, 576 U.S. 863, 876 (2015). Plaintiff alleges that "even if every step set forth in the Protocol is followed perfectly, there is a substantial risk [he] will experience unnecessary pain and suffering during [his execution] which is substantially greater than the pain and suffering caused by feasible and readily available methods

[3] The Protocol defines the Execution Team as consisting of the Warden, the Associate Warden of Security, Executioner, IV Team, Extraction Team, Death Watch Team, Lethal Injection Recorder, Facility Maintenance Supervisor, ITS Security Systems Technician(s), and Escort Officers. (DSUMF ¶ 134.)

[4] The Amended Complaint as a whole challenges the Protocol "on its face and as applied" (D.E. 51, PageID# 2142), but Plaintiff has since clarified that the only claim remining in this case is a facial challenge (DSUMF ¶¶ 9, 183).

of carrying out . . . sentences of death." (D.E. 51, PageID# 2243.) Specifically, he alleges that "[m]idazolam, even at its maximum effect, will not prevent [him] from experiencing the pain and suffering caused by the subsequent injections of vecuronium bromide and potassium chloride required by the Protocol." (D.E. 51, PageID# 2244.) He alleges that, as a result of midazolam's limitations, there is a substantial risk an inmate will experience "pulmonary edema from the acidic midazolam injection, suffocation due to paralysis from vecuronium bromide, and the internal chemical burn caused by injection of potassium chloride." (D.E. 51, PageID# 2214, 2219, 2245.) Plaintiff further alleges that the Protocol is facially unconstitutional because it poses a risk of maladministration that may result in unconstitutional pain. (D.E. 51, PageID# 2251-2268 ¶¶ 579-655.)

Plaintiff proposes five alternatives to the Protocol: (1) single bullet to the back of the head; (2) firing squad; (3) oral administration of secobarbital or a combination of midazolam, digoxin, morphine sulfate, and propranolol; (4) injection of midazolam and potassium chloride; and (5) injection of pentobarbital. (D.E. 51, PageID# 2213, 2223, 2226-27 ¶¶ 357, 399, 401, 417-18, 430-31.)

As set out below, the evidence in the record does not support Plaintiff's allegations because (1) the administration of midazolam and the Protocol's many safeguards protect against Plaintiff's alleged risks of pain and (2) Plaintiff has not met his burden to plead and prove a feasible, available, and readily implemented alternative. Thus, summary judgment should be granted in favor of Defendants.

LEGAL STANDARD

"A party may move for summary judgment, identifying each claim or defense . . . on which summary judgment is sought." Fed. R. Civ. P. 56(a). Summary judgment is appropriate where

the pleadings and admissions on file demonstrate that "there is no genuine dispute as to any material fact" and that "the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a); *F.P. Dev., LLC v. Charter Twp. of Canton, Michigan*, 16 F.4th 198, 203 (6th Cir. 2021). The main inquiry is "whether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law." *Wilson v. Gregory*, 3 F.4th 844, 855 (6th Cir. 2021) (quoting *Troutman v. Louisville Metro Dep't of Corr.*, 979 F.3d 472, 481 (6th Cir. 2020)). "At the summary-judgment stage, 'the evidence is construed and all reasonable inferences are drawn in favor of the nonmoving party.'" *Clemons v. Couch*, 3 F.4th 897, 902 (6th Cir. 2021) (quoting *Burgess v. Fischer*, 735 F.3d 462, 471 (6th Cir. 2013)). The Court may grant summary judgment in its entirety, or in part based on the part of each claim or defense for which summary judgment would be appropriate. Fed. R. Civ. P. 56(a).

To avoid a motion for summary judgment, the "nonmoving party 'must set forth specific facts showing that there is a genuine issue for trial.'" *RJ Control Consultants, Inc. v. Multiject, LLC*, 981 F.3d 446, 452 (6th Cir. 2020) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250-52 (1986)). But the "'mere existence of a scintilla of evidence' in support of the non-moving party does not establish a genuine issue of material fact." *Goodman v. J.P. Morgan Inv. Mgmt., Inc.*, 954 F.3d 852, 859 (6th Cir. 2020) (quoting *Anderson*, 477 U.S. at 252). The evidence must be "such that a reasonable jury could return a verdict for the nonmoving party." *Clemons*, 3 F.4th at 902 (quoting *Peffer v. Stephens*, 880 F.3d 256, 262 (6th Cir. 2018)). Therefore, summary judgment is warranted if the "non-moving party 'fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial.'" *Goodman*, 954 F.3d at 859 (quoting *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986)).

Plaintiff challenges the constitutionality of the Protocol on its face. (DSUMF ¶¶ 9, 183.) "A facial challenge is really just a claim that the law or policy at issue is unconstitutional in all its applications." *Bucklew v. Precythe*, 139 S. Ct. 1112, 1127 (2019). Plaintiff can only succeed in this challenge "by 'establish[ing] that no set of circumstances exists'" under which the Protocol would be constitutional. *Washington State Grange v. Washington State Republican Party*, 552 U.S. 442, 449 (2008) (quoting *United States v. Salerno*, 481 U.S. 739, 745 (1987)).

ANALYSIS

Defendants are entitled to judgment as a matter of law on Count Three because the Protocol does not impose a cruel and unusual punishment in violation of the Eighth Amendment. The "Eighth Amendment does not guarantee a prisoner a painless death." *Bucklew*, 139 S. Ct. at 1124; *see also In re Ohio Execution Protocol Litig.* ("*Henness v. DeWine*"), 946 F.3d 287, 290 (6th Cir. 2019) (noting that an execution by hanging—while posing a "near certainty" of pain—is not so painful as to violate the Eighth Amendment), *cert. denied sub nom. Henness v. DeWine*, 141 S. Ct. 7 (2020); DSUMF ¶ 24. But the Eighth Amendment does protect a prisoner from a punishment that will "superadd terror, pain, or disgrace" to the execution. *Bucklew*, 139 S. Ct. at 1124. The Supreme Court has, accordingly, adopted a two-prong test (the "*Baze-Glossip* test") that governs an Eighth Amendment method-of-execution challenge: the plaintiff must (1) establish that the State's protocol is "sure or very likely" to cause "serious illness," "needless suffering," and "severe pain"; and (2) propose an alternative method of execution that is feasible and readily implemented, and that in fact significantly reduces a substantial risk of severe pain. *Glossip*, 576 U.S. at 877-78 (quoting *Baze v. Rees*, 553 U.S. 35, 50, 52, 61 (2008) (plurality opinion)). Both prongs must be met; if a plaintiff fails to prove either one, then the Eighth Amendment challenge fails. *Bucklew*, 139 S. Ct. at 1126-27.

The *Baze-Glossip* test poses an "exceedingly high bar" to Eighth Amendment challenges. *Barr v. Lee*, 140 S. Ct. 2590, 2591 (2020) (per curiam). This bar is high "[f]or good reason." *Id.* States that impose a death penalty do not seek "to superadd terror, pain, or disgrace to their executions." *Id.* (quoting *Bucklew*, 139 S. Ct. at 1124). On the contrary, these "'States have often sought more nearly the opposite,' developing new methods, such as lethal injection, thought to be less painful and more humane than traditional methods, like hanging, that have been uniformly regarded as constitutional for centuries." *Id.* (quoting *Bucklew*, 139 S. Ct. at 1124); DSUMF ¶ 11. It should come as no surprise, therefore, that "while methods of execution have changed over the years, "[the Supreme Court] has never invalidated a State's chosen procedure for carrying out a sentence of death as the infliction of cruel and unusual punishment." *Glossip*, 576 U.S. at 869 (quoting *Baze*, 553 U.S. at 48).

Tennessee, like other states, has sought to develop a method of execution that is more humane than traditional constitutional methods. Here, the undisputed facts demonstrate that (1) the Protocol is neither sure nor very likely to cause needless suffering and severe pain, and (2) not one of Plaintiff's five proposed alternative methods of execution is viable.

I. The Protocol Does Not Pose a Substantial Risk of Unconstitutionally Severe Pain and Suffering.

To succeed on the first prong of the *Baze-Glossip* test in a facial challenge, Plaintiff must establish that the Protocol is sure or very likely to cause an unconstitutionally severe amount of pain each time it is used. *Washington State Grange*, 552 U.S. at 449. Plaintiff's allegations on this prong fall into two parts. First, he alleges that an inmate will experience severe pain because midazolam may cause pulmonary edema and might not prevent the inmate from perceiving pain, vecuronium bromide will cause sensations of suffocation and prevent the inmate from communicating if he or she is conscious, and potassium chloride will cause severe pain both on

injection and due to the resulting cardiac arrest. Second, he alleges that there is a risk of pain that may result from maladministration of the Protocol.

"[I]t is immaterial whether [an] inmate will experience some pain" under the Protocol because "the fact that [the Protocol] may not prevent the inmate from experiencing pain is irrelevant to whether the pain the inmate might experience is unconstitutional. *Henness*, 946 F.3d at 290. Instead, "the question is whether the level of pain the inmate subjectively experiences is constitutionally excessive." *Id*. Here, the evidence—including proof of 2018 and 2019 executions carried out under Protocol 2018 without complications—demonstrates that there is not a substantial risk that the Protocol will cause an inmate to experience a constitutionally excessive amount of pain.

A. The Protocol's three-drug combination of midazolam, vecuronium bromide, and potassium chloride does not violate the Eighth Amendment.

In challenges to a three-drug protocol like this one, which involves an injection of 500 mg of midazolam, 100 mg of vecuronium bromide, and 240 mEq of potassium chloride (DSUMF ¶¶ 8, 10), "the relevant inquiry is whether an inmate injected with 500 milligrams of midazolam would subjectively experience unconstitutionally severe pain." *Henness*, 946 F.3d at 290. The evidence shows that an injection of 500 mg of midazolam will prevent an inmate from perceiving pain because midazolam, in high enough doses, will induce general anesthesia. The evidence also shows that even if an inmate experienced pain from vecuronium bromide's effect on breathing, which the inmate will not, such pain is not constitutionally cognizable. And the evidence shows that an inmate will not experience an unconstitutional amount of pain when injected with potassium chloride because, due to the midazolam, the inmate will not be conscious and able to perceive pain.

1. Midazolam is not sure or very likely to result in severe pain but instead renders the inmate unconscious and insensate to pain.

An injection of 500 milligrams of midazolam will render a death-row inmate unconscious and unable to feel pain, and will possibly even hasten death. (DSUMF ¶¶ 27, 35, 40, 42.) Midazolam is a short-acting benzodiazepine, meaning it is metabolized quickly and has a shorter effect time. (DSUMF ¶¶ 27, 30-32, 35, 37-38, 41, 46.) It is used for the induction of general anesthesia,[5] but it is also commonly used as a sedative. (DSUMF ¶¶ 31-33, 39.) Midazolam can produce unconsciousness without the assistance of other drugs. (DSUMF ¶ 41.) And, unlike some anesthetics, midazolam is not painful on intravenous injection. (DSUMF ¶ 63.) A person administered midazolam in large, supra-clinical doses does not perceive pain, and movement in such a person does not reflect consciousness and awareness of pain. (DSUMF ¶¶ 13-23, 25-28, 42-52, 55-57, 61-62, 94-97, 112.)

When compared with other known, complete anesthetics, such as thiopental, propofol, and isoflurane, midazolam is similarly effective at producing unconsciousness, blunting responses to noxious stimuli, and reducing awareness of pain. (DSUMF ¶¶ 51-52.) A typical therapeutic dose of midazolam for a 70-kilogram (150-155 pound) adult is between 2 and 3 milligrams. (DSUMF ¶ 34.) Intravenous administration of 500 mg of midazolam is about 10-20 times the dose recommended to induce general anesthesia and about 100-200 times the normal therapeutic dose. (DSUMF ¶¶ 53-54.)

Under the Protocol, after administration of the midazolam and a saline flush, the Warden must wait two minutes before checking consciousness and before proceeding to the vecuronium bromide. (DSUMF ¶ 121.) An injection of 500 mg of midazolam will achieve peak effect within

[5] A person in a state of general anesthesia will exhibit amnesia, unconsciousness, and sometimes, immobility in response to a noxious stimulus. (DSUMF ¶¶ 12-23.)

2 to 3 minutes. (DSUMF ¶ 38.) Consequently, the inmate will be rendered completely unconscious and insensate to pain and noxious stimuli before the latter two drugs are injected. (DSUMF ¶¶ 56, 59, 98-99.) In fact, the person will be unconscious before administration of the entire 500 mg dose is complete. (DSUMF ¶ 58.) The inmate will not be aware of other stimuli during the remaining administration of the Protocol. (DSUMF ¶¶ 56-60, 112.)

In addition to rendering a person unconscious, midazolam can cause medical side effects that may hasten death. It can lower blood pressure and cause unconsciousness, respiratory depression, and apnea. (DSUMF ¶¶ 35, 95.) It has so potent an effect that the administration of midazolam by itself has caused death. (DSUMF ¶ 40.)

In light of these and other considerations, "numerous courts have concluded that the use of midazolam as the first drug in a three-drug protocol is likely to render an inmate insensate to pain that might result from administration of the paralytic agent and potassium chloride." *See Glossip*, 576 U.S. at 881 (collecting cases); *McGehee v. Hutchinson*, 463 F. Supp. 3d 870, 913-14 (E.D. Ark. 2020) (considering the bench-trial testimony experts for the death-row-inmate plaintiffs and finding that the plaintiffs failed to "prove[] that the Arkansas Midazolam Protocol entails a substantial risk of severe pain as a result of the use of a 500-mg dose of Midazolam as the first drug in the three-drug protocol"), *appeal filed sub nom. Johnson v. Hutchinson*, No. 21-1965 (8th Cir. Apr. 30, 2021).

Plaintiff alleges that a 500 mg dose of midazolam is ineffective at producing a state of anesthesia for two reasons—both are unsupported by the record. First, Plaintiff alleges that midazolam has a ceiling effect after which additional amounts of midazolam have no effect, and thus a 500 mg dose of midazolam is "no more effective than the minimum dose of midazolam." (D.E. 51, PageID# 2247 ¶ 548; *see id.* at 2244 ¶¶ 523-25, 2245 ¶ 529.) Plaintiff's allegation that

midazolam has a ceiling effect before 500 mg is based on a fundamentally flawed, and unsupported, assumption regarding the brain's chemistry.

The brain contains an amino acid called gamma aminobutyric acid ("GABA") that inhibits (decreases or prevents) activity in the central nervous system (the brain and spinal cord) when it interacts with GABA receptors in the brain. (DSUMF ¶¶ 101-02.) Midazolam increases the activity-inhibiting effects that GABA has when interacting with these GABA receptors. (DSUMF ¶¶ 100-02.) Because midazolam requires both GABA and GABA receptors to have an effect, Plaintiff proposes that midazolam has a ceiling effect, and "[o]nce all GABA receptors are bound, additional midazolam does not have a pharmacological effect upon the central nervous system." (D.E. 51, PageID# 2247 ¶ 547.) Plaintiff speculates that, once the "ceiling" of the dosage for midazolam is reached, midazolam cannot induce a state of unconsciousness, and thus a dose of 500 mg will not induce sedation beyond levels achieved with therapeutic doses of midazolam.

But, as Plaintiff's expert conceded, there is no known measurement of the amount of GABA in the brain or spinal cord. (DSUMF ¶ 103.) Nor is there any known measurement of the number of GABA receptors in the brain. (DSUMF ¶ 104.) Experts are therefore unable to identify what amount of midazolam is needed to bind all GABA receptors because they do not know the amount of GABA, nor the number of GABA receptors, in human body. (DSUMF ¶¶ 103-06.) As a result, there is no known dose at which midazolam reaches a ceiling effect. (DSUMF ¶¶ 103-06.) Consequently, Plaintiff cannot prove that 500 mg midazolam is ineffective due to a ceiling effect. *See McGehee*, 463 F. Supp. 3d at 913 ("Even if there is general medical consensus that Midazolam has a ceiling effect, there is no such consensus on the dose of Midazolam at which a ceiling effect is exhibited."). And it is noteworthy that, despite Plaintiff's protestations that a dose of 500 mg of midazolam is ineffective at rendering a person insensate to pain, Plaintiff still

proposes an alternative method of execution using the *exact* same amount of midazolam. (D.E. 51, PageID# 2226 ¶ 416.)

Second, Plaintiff alleges that "[m]idazolam at any dose is incapable of rendering [a death row inmate] unaware of and insensate to the pain of the second and third execution drugs," because midazolam is a sedative and lacks analgesic effects that reduce pain. (D.E. 51, PageID# 2245 ¶ 529, 2246 ¶¶ 536-540.) But as mentioned, midazolam can produce profound unconsciousness that is at least as effective as other drugs. (DSUMF ¶¶ 31-33, 39, 41, 51-52.) And it has rendered patients unaware of noxious stimuli that would be exceedingly painful if the patients were conscious, including endotracheal intubation, the incision and dissection of abdominal tissues, cystoscopies, prostate biopsies, nasogastric tube placements, colonoscopies, and knee arthroscopies. (DSUMF ¶¶ 46-50, 61-62.) For these and other related reasons, intravenous administration of 500 mg of midazolam will produce a state of anesthesia comparable to levels of anesthesia considered adequate for painful medical procedures performed daily throughout the world. (DSUMF ¶ 55.)

While Plaintiff's anesthesiologist asserts that midazolam cannot produce and maintain unconsciousness deep enough to prevent an inmate from experiencing severe pain (Van Norman Rep. at 14), that same expert cannot even define "unconsciousness" and asserts that there is no way to tell if anyone is unconscious (DSUMF ¶¶ 64-65, 67). That expert has also conceded that even as an anesthesiologist she is unaware if she has *ever* rendered her own patients unconscious. (DSUMF ¶ 70.) And she is not aware of any drug or combination of drugs that could consistently put a person in a deep enough state of unconsciousness to prevent the person from feeling pain. (DSUMF ¶¶ 68-69.) Because Plaintiff's expert cannot acknowledge whether *any* drug or a combination of drugs has ever, or can ever, put a person in a deep enough state of unconsciousness

to avoid perceiving severe pain, Plaintiff cannot prove that an injection of 500 mg of midazolam is less effective at causing this state of unconsciousness than any other anesthetic technique used on a daily basis in painful medical procedures in the United States and around the world.

Plaintiff also alleges that an injection of midazolam could cause pulmonary edema due to the drug's acidity. (D.E. 55, PageID# 2214 ¶ 363, 2219 ¶ 386.) Plaintiff's allegations about pulmonary edema are not cognizable as an Eighth Amendment violation because, even if pulmonary edema resulted in pain, the Sixth Circuit has stated it would not be an unconstitutionally severe amount of pain. *See Henness*, 946 F.3d at 290 (finding that the pain resulting from pulmonary edema is not "constitutionally cognizable"); *see also In Re Ohio Execution Protocol Litig.*, No. 2:11-CV-1016, 2021 WL 325884, at *8 (S.D. Ohio Feb. 1, 2021) ("[T]he *Henness II* panel held that the pain from midazolam-induced pulmonary edema was not constitutionally prohibited . . . .").

Also, this allegation is unsupported by the record. Pulmonary edema is a very common finding in autopsies that identifies fluid buildup in the lungs. (DSUMF ¶¶ 71-72, 76.) This condition is found in deaths resulting from a variety of causes. (DSUMF ¶ 71-73, 78-83.) If pulmonary edema were to occur in an inmate, the record does not show that midazolam would necessarily be the cause of the condition. (DSUMF ¶¶ 71-73, 78-83, 88-89.) It may occur during the administration of the Protocol, but if it did, it would only occur at some point after midazolam had been administered, and thus after the inmate is rendered unconscious. (DSUMF ¶¶ 74-75, 77.) It could also occur after death, during the post-mortem interval prior to the autopsy. (DSUMF ¶¶ 77, 80, 81, 86-87.)

Nor does the record demonstrate that pulmonary edema necessarily results in pain. Large portions of patients with pulmonary edema report no symptoms. (DSUMF ¶ 84.) Pulmonary

edema does not necessarily lead to sensations of breathlessness. (DSUMF ¶¶ 84-85.) Patients that undergo whole lung lavage, akin to profound pulmonary edema, do not experience pain. (DSUMF ¶¶ 90-93.)

Thus, Plaintiff cannot show that an injection of 500 mg of midazolam is sure or very likely to result in severe pain.

2. Vecuronium bromide, in combination with midazolam, is not sure or very likely to cause severe pain.

Vecuronium bromide is a muscle relaxant that blocks signals from the nerves to the muscles, resulting in paralysis of muscles throughout the body, including the diaphragm. (DSUMF ¶¶ 107-09, 113.) Paralysis of the diaphragm stops breathing and results in the build-up of carbon dioxide. (DSUMF ¶ 110.) This amount of carbon dioxide is not sufficient to waken anesthetized patients but, if left untreated, will ultimately result in suffocation. (DSUMF ¶¶ 110-11, 114.) Because of this paralysis, vecuronium bromide hastens death and could even kill an inmate before administration of potassium chloride. (DSUMF ¶ 111.)

Plaintiff and his experts assert that use of vecuronium bromide is unconstitutional because it will result in involuntary paralysis and a sensation of suffocation. (D.E. 51, PageID# 2245, ¶ 531, 2248-49 ¶¶ 559-66; Van Norman Rep. at 24-27; Stevens Rep. at 12, 15-16.) These allegations do not show an Eighth Amendment violation because, as the Court already held in this case, "it would be legally impossible for anyone alleging only sensations of drowning or suffocating to establish an Eighth Amendment violation in connection with a method of execution." *King v. Parker*, 467 F. Supp. 3d 569, 573 (M.D. Tenn. 2020). An Eighth Amendment violation occurs if a person is sure or very likely to perceive *severe* pain. *Id.* Plaintiff's allegations of paralysis are not allegations of pain. Likewise, Plaintiff's allegations of suffocation and the pain associated with it are not legally cognizable under the Eighth Amendment. *Id.* Indeed, since the start of this

litigation, Plaintiff has conceded that vecuronium bromide does not affect pain. (D.E. 51, PageID# 2248 ¶ 558.) Because vecuronium bromide does not cause unconstitutionally severe pain, its usage does not violate the Eighth Amendment.

Furthermore, due to the unconscious state resulting from the preceding injection of midazolam (DSUMF ¶¶ 13-23, 25-28, 42-52, 55-57, 61-62, 94-97, 112), an inmate will not waken from the subsequent injection of vecuronium bromide and perceive its effects (DSUMF ¶¶ 111, 114.) Midazolam will prevent the inmate from perceiving any pain resulting from the vecuronium bromide. (DSUMF ¶¶ 56, 59, 98-99.)

3. Potassium chloride, in combination with midazolam and vecuronium bromide, is not sure or very likely to cause severe pain.

Potassium chloride is an electrolyte solution that, in high doses, blocks heart muscle contraction. (DSUMF ¶ 116.) Administration of potassium chloride as required by the Protocol will result in cardiac arrest and quick death. (DSUMF ¶¶ 115, 117.) If administered without a sedative or anesthetic, potassium chloride causes pain. (DSUMF ¶ 118.) The record lacks evidence demonstrating administration of potassium chloride after administration of 500 mg of midazolam will result in the person awakening and perceiving pain. (DSUMF ¶ 99.)

Plaintiff alleges that the use of potassium chloride in combination with midazolam and vecuronium bromide violates the Eighth Amendment because a death-row inmate would experience unconstitutionally severe pain during both the initial injection and the resultant cardiac arrest, yet be unable to communicate that pain. (D.E. 51, PageID# 2245 ¶ 531, 2248-49 ¶¶ 559-66, 2250 ¶¶ 569, 571.) But Plaintiff's own proposed two-drug alternative method of execution employs the same doses of midazolam and potassium chloride in the Protocol. Plaintiff's reliance on this alternative leads naturally to the conclusion that, when used in combination, midazolam would prevent Plaintiff from feeling the pain resulting from potassium chloride. This alternative

implicitly concedes that, if the midazolam does not fail, then the midazolam will prevent a death-row inmate from perceiving severe pain from potassium chloride. Thus, by proposing an alternative that adopts the exact same doses of midazolam and potassium chloride in the Protocol, Plaintiff inherently admits that use of the quantities of midazolam and potassium chloride in the Protocol will not result in unconstitutionally severe pain.

In any event, Plaintiff's allegation is premised on his claims regarding the effectiveness of midazolam, and as discussed, the evidence does not support Plaintiff's allegations regarding midazolam. Accordingly, potassium chloride will not cause an unconstitutional amount of pain, because the injection of 500 mg of midazolam will already prevent the inmate from perceiving pain. (DSUMF ¶¶ 56, 59, 98-99.)

For these reasons, it is constitutional for the State of Tennessee to carry out a lethal injection using the three drugs of midazolam, vecuronium bromide, and potassium chloride.

B. Evidence of a slight risk of improper administration of or deviation from the Protocol is insufficient to render a facially sound Protocol unconstitutional.

In addition to challenging the three-drug combination in the Protocol, Plaintiff has also alleged that the Protocol is facially unconstitutional because there is a risk of maladministration or deviation that may result in unconstitutional pain. (D.E. 51, PageID# 2251-2268 ¶¶ 579-655.) The evidence in the record is far from sufficient to render the facially sound Protocol unconstitutional because the Protocol contains adequate safeguards to protect against maladministration and Plaintiff has not proven a pattern of deviations from the Protocol that will likely result in pain. (DSUMF ¶¶ 119-20.)

The Supreme Court has recognized that a risk of "pain" caused by an "accident" is not sufficient to "establish the sort of 'objectively intolerable risk of harm' that qualifies as cruel and unusual punishment." *Baze*, 553 U.S. at 50 (citation omitted). If there is a pattern of severe

misbehavior, such as a "a series of abortive attempts at electrocution," this pattern might be enough to show an Eighth Amendment violation. *Id.* (quoting *State of La. ex rel. Francis v. Resweber*, 329 U.S. 459, 471, (1947) (Frankfurter, J., concurring)). But "an isolated mishap alone does not give rise to an Eighth Amendment violation, precisely because such an event, while regrettable, does not suggest cruelty, or that the procedure at issue gives rise to a 'substantial risk of serious harm.'" *Id.* (quoting *Farmer v. Brennan*, 511 U.S. 825, 842 (1994)). When reviewing the Supreme Court's caution against equating minor or isolated mishaps with objectively intolerable risk, the Sixth Circuit has further clarified that "[s]peculations, or even proof, of medical negligence in the past or in the future are not sufficient to render a facially constitutionally sound protocol unconstitutional." *Cooey v. Strickland*, 589 F.3d 210, 225 (6th Cir. 2009). To conclude otherwise and "permit[] constitutional challenges to lethal injection protocols based on speculative injuries and the possibility of negligent administration" would deviate from "Supreme Court precedent" and exceed the scope of a court's "judicial authority." *Id.*

Furthermore, when a state has already included safeguards in its lethal injection protocol, these safeguards can reduce a risk of maladministration to the point where it is not "so substantial or imminent as to amount to an Eighth Amendment violation." *Baze*, 553 U.S. at 55-56. In *Baze*, the Supreme Court upheld the constitutionality of a lethal injection protocol that required members of the execution team to have relevant professional experience, mandated that the execution team participate in practice sessions, and called for the preparation of two sets of lethal-injection drugs. *Id.* While the examples in *Baze* are helpful, *Baze* should not be read as establishing a "constitutional floor" of approved safeguards that must be included in a protocol. *Estate of Lockett ex rel. Lockett v. Fallin*, 841 F.3d 1098, 1115 (10th Cir. 2016). The Protocol's safeguards are especially relevant in the context of a facial challenge because a facial challenge "does not involve

a consideration of [a] list of things that *might* go wrong if the Protocol is not followed." *West*, 519 S.W.3d at 556. Instead, the challenge turns on "risks that are inherent in the Protocol itself." *Id.*

Plaintiff's maladministration allegations fall into six categories: (1) there are not sufficient safeguards to confirm that an inmate is unconscious and not in pain (D.E. 51, PageID# PageID# 2244-45 ¶¶ 526-28, 530; 2246 ¶ 540; 2247 ¶ 550); (2) the Execution Team might improperly administer the lethal-injection drugs (D.E. 51, PageID# 2251-55, ¶¶ 579-604, 2266-67 ¶¶ 647-54); (3) an inmate's breathing may be impaired during the execution (D.E. 51, PageID# 2260 ¶¶ 613-17); (4) the restraints on an inmate's hands and fingers might cause the inmate to suffer (D.E. 51, PageID# 2262 ¶¶ 626-30); (5) the Execution Team might not actually prepare two sets of drugs (D.E. 51, PageID# 2263 ¶¶ 631-33); and (6) if the drugs are improperly stored and transported, it would create a substantial risk of severe pain (D.E. 51, PageID# 2263-66 ¶¶ 634-46.) The Protocol contains sufficient safeguards to protect against any risk of severe pain contemplated in these allegations. And, indeed, under this Protocol, Tennessee has carried out two executions without complications: the executions of Billy Ray Irick and Donnie Edward Johnson. (DSUMF ¶¶ 179-183, 184-88.)

1. The Protocol has sufficient safeguards to confirm unconsciousness and inability to perceive pain.

Plaintiff alleges that, at each stage of the execution process, the Protocol is unconstitutional because it lacks sufficient safeguards to confirm that an inmate is unconscious and not in pain. (D.E. 51, PageID# PageID# 2244-45 ¶¶ 526-28, 530; 2246 ¶ 540; 2247 ¶ 550.) Experts on both sides agree that unresponsiveness to external stimuli indicates unconsciousness and an inability to feel pain. (DSUMF ¶ 132.) A non-physician can be trained to assess a level of consciousness. (DSUMF ¶¶ 127-28.) Accordingly, the Warden has been trained by a physician on how to perform a consciousness check. (DSUMF ¶ 125.)

The Protocol requires that after the 500 mgs of midazolam and a saline flush have been dispensed, the Warden waits for two minutes and then assesses the consciousness of the inmate by (1) brushing the back of the Warden's hand over the inmate's eyelashes, (2) calling the inmate's name loudly two times, and (3) grabbing the trapezius muscle of the shoulder with the thumb and two fingers and twisting. (DSUMF ¶ 121.) The Warden must document the observations resulting from this consciousness check and direct administration of the vecuronium bromide and potassium chloride only after the inmate's unresponsiveness demonstrates the inmate is unconscious. (DSUMF ¶¶ 122-23.) And, as documented during the executions of Billy Ray Irick and Donnie Edward Johnson, the Warden performs these checks. (DSUMF ¶ 124.)

These and similar consciousness checks are commonly used in clinical settings to confirm that a patient is deeply sedated enough to not perceive pain. (DSUMF ¶¶ 129-131.) Indeed, one of Plaintiff's experts has used similar consciousness checks on his patients in the past, relying on "pinches" or a "sternal rub." (DSUMF ¶ 133.) Thus, because the consciousness checks in the Protocol accord with the practice of medical experts, the evidence fails to show that the Protocol lacks a sufficiently detailed means for assessing whether an inmate is sedated enough to not perceive pain.

2. The Protocol contains safeguards to ensure proper administration of the lethal-injection drugs.

Plaintiff takes issue with the Execution Team's ability to establish proper peripheral IV access and the Execution Team's ability to administer the drugs in a way that does not create a paradoxical effect. These allegations do not rise to the level of an Eighth Amendment violation. *Cooey*, 589 F.3d at 223 ("The risks of maladministration they have suggested—such as improper mixing of chemicals and improper setting of IVs by trained and experienced personnel—cannot remotely be characterized as 'objectively intolerable.'" (quoting *Baze*, 553 U.S. at 61)).

Nonetheless, the safeguards in the Protocol protect against all these alleged risks of maladministration. And Plaintiff's expert concedes that lethal injection procedures do not require the participation of a physician or anyone who is medically trained. (DSUMF ¶ 126.)

a. The safeguards ensure the drugs will be correctly administered.

Plaintiff alleges that, because the Protocol lacks sufficient safeguards and the Execution Team is not properly trained, the team will "stab him with needles repeatedly" and inject the drugs in "subcutaneous area[s]." (*Id.* at 2251-54 ¶¶ 579-601.) But the Protocol contains multiple safeguards related to the establishment and maintenance of IV sites, including but not limited to the following examples. The Protocol contains detailed instructions for certified EMTs to set up the IV line and a backup IV line before IV access is established. (DSUMF ¶¶ 147, 158.) It lists backup sites for the establishment of an IV line if an attempt to insert an IV catheter at primary location "on the right side of the inmate in the antecubital *fossa* area" is unsuccessful. (DSUMF ¶ 158.) As a last resort, the Protocol gives the physician discretionary authority to perform a cut-down procedure which would bare a vein for an IV line in the unlikely event that none of the alternative IV sites are usable. (DSUMF ¶ 158.) The Protocol also requires that the inmate's arms and hands be secured to the gurney, which helps prevent movement in the locations where the IV lines are or could be attached. (DSUMF ¶¶ 158, 171-75.) The Protocol directs members of the IV team to observe the IV for indicators of a well-functioning line: (1) a steady flow/drip inside the drip chamber upon opening of the clamp and (2) that the flash chamber becomes clear of blood as the saline begins to flow. (DSUMF ¶ 158.) It requires continuous monitoring of the IV catheters by all members of the IV team to ensure there is no swelling around the catheter that could indicate that the catheter is not sufficiently inside the vein. (DSUMF ¶ 158.) The Protocol also provides for a dedicated IV team member who continually monitors the catheter sites for swelling or

discoloration after placement. (DSUMF ¶ 158.) And, to avoid improper injections, it requires that, when the Executioner administers the first syringe, if there is swelling around the catheter or if there is resistance to the pressure, the Executioner pulls the plunger back to check and see if the line fills with blood, which would indicate the catheter was properly placed. (DSUMF ¶ 158.) If the catheter does not fill with blood, the Executioner discontinues and switches to the backup IV line. (DSUMF ¶ 158.)

Plaintiff also alleges that the Execution Team is not prepared to administer the compounded midazolam and potassium chloride. (D.E. 51, PageID# 115 ¶¶ 591-94.) However, Plaintiff's expert agrees that a layperson can handle and administer compound preparations. (DSUMF ¶ 152.) And the Protocol contains safeguards for the proper preparation and administration of all three drugs. (DSUMF ¶¶ 255-70.) For the compounded drugs, the Protocol also requires the Execution Team to prepare the drugs in accordance with the directions of the Pharmacy. (DSUMF ¶ 261.) The Pharmacy has provided written instructions for the preparation of the compounded midazolam and potassium chloride. (DSUMF ¶¶ 264-70.) The record reflects that the Execution Team follows these requirements. (DSUMF ¶¶ 271-74, 277.) Plaintiff's expert further concedes that these instructions in the Protocol and provided by the Pharmacist are sufficient to ensure correct preparation and administration of compounded midazolam and potassium chloride. (DSUMF ¶ 275.) And Plaintiff's expert acknowledges that there is no identifiable harm to an inmate who receives an injection of vecuronium bromide drawn into a syringe two hours before administration of lethal-injection chemicals. (DSUMF ¶ 253.)

b. The safeguards require sufficient training.

The Protocol also provides selection criteria and training requirements to ensure members of the Execution Team can perform the tasks assigned to them, and the record reflects compliance

with these requirement. (DSUMF ¶¶ 135-57, 254.) All members of the Execution Team are required to familiarize themselves with the Protocol, and they have done so. (DSUMF ¶¶ 138-41.) The Protocol requires that the Execution Team include three Certified Emergency Medical Technicians and three correctional staff who have received IV training through the Tennessee Correction Academy by qualified medical professionals. (DSUMF ¶ 147.) All three members of the IV Team have received IV training from qualified medical professionals. (DSUMF ¶ 159.) The Executioner has also received IV training through the Tennessee Correction Academy by qualified medical professionals, administered through a college. (DSUMF ¶ 154.) The Executioner and members of the IV team annually receive update training from a certified EMT instructor, who administers training on IV therapy material, how to find a vein if there is a problem doing so, and what to look for to know if there is a "blown vein." (DSUMF ¶ 155.)

The Protocol requires multiple forms of regular, documented practice training sessions for members of the Execution Team. (DSUMF ¶ 137, 138, 153.) It requires, among other provisions, that the Warden or designee hold a class at least annually during which all members of the Execution Team review the protocol; that the Warden and Associate Warden of Security test all lethal injection equipment at a training session at least once a month, including a simulated execution with IV lines and IV drip; and that the Execution Team simulates the execution day every month. (DSUMF ¶ 138.) In accordance with the requirements of the Protocol, the Warden holds an annual class on the Protocol; Warden Mays and the Associate Warden of Security test all lethal injection equipment at a training session at least once a month, including a simulated execution day with real IV lines inserted into a live participant, and a real IV drip; and the Execution Team has monthly practice sessions. (DSUMF ¶¶ 141-42, 177.) Defendant Mays has

overseen all lethal injection practices except two since becoming Warden in 2017 and has never observed a deviation from the Protocol during these practice sessions. (DSUMF ¶ 148.)

As further protection against causing pain, the Protocol also provides for contingencies. For example, if the Execution Team is unable to establish IV access, they are not to "stab" the inmate in the same place. (D.E. 51, PageID# 2251 ¶ 581.) Instead, the Physician may use a cut-down procedure or choose a different method. (DSUMF ¶ 176.) If there is an interruption in delivery of the lethal-injection drugs through the primary IV line, or if the inmate exhibits signs of consciousness after the administration of the first syringes of midazolam, the Executioner then switches to a secondary IV line and administers from the second, backup set of syringes containing lethal-injection drugs. (DSUMF ¶ 176.) And the Warden will perform a second consciousness check. (DSUMF ¶ 176.) If an inmate is not deceased after the initial set of syringes have been injected, then the lethal injection procedure will be repeated with the second set of syringes and the Physician will again check for signs of life. (DSUMF ¶ 176.) The monthly practice sessions performed by the Execution Team include simulation of these and other emergencies and contingencies, including the inmate losing consciousness en route to the execution chamber; difficulties gaining IV access; interruptions of delivery of the drugs in the primary IV line; a failed consciousness check; and the inmate not being deceased after injection with the initial set of syringes. (DSUMF ¶ 177.) Furthermore, the Execution Team has simulated the use of alternative IV insertion sites listed in the Protocol. (DSUMF ¶ 178.)

The Protocol provides additional safeguards related to training and administration of the drugs when an execution date nears. The Execution Team receives additional training two weeks before a scheduled execution. (DSUMF ¶¶ 143-144.) A week before the scheduled execution, the

Execution Team tests all the appliances and equipment for the scheduled execution. (DSUMF ¶¶ 145-46.)

c. The Execution Team has a record of success applying the Protocol.

In application, the Execution Team has a history of compliance and success. Warden Mays has overseen two executions using the current Protocol and has not observed deviation from the Protocol. (DSUMF ¶¶ 149-50.) The members of the IV team monitor the injection site as required. (DSUMF ¶ 168.) The Executioner, who has been Tennessee's executioner in twelve prior executions, carried out the two executions under the Protocol without complications and has never needed to use the backup line. (DSUMF ¶¶ 156-57, 160, 169-70, 179-82.) A certified EMT has inserted the IV catheters during every lethal-injection execution. (DSUMF ¶ 161.) Both EMT 1, who has participated in every lethal injection execution in Tennessee since 2000, and EMT 2, who has participated in two executions, are licensed and typically do not need multiple attempts to insert an IV catheter into the antecubital area during an execution. (DSUMF ¶¶ 162-64.) EMT 3, who had been on the Execution Team for three months as of EMT 3's October 2021 deposition, is also licensed and generally takes one attempt to start an IV line, and only required two attempts to complete a successful IV line during one out of the three monthly training sessions EMT 3 had attended. (DSUMF ¶¶ 162-63, 165.) Furthermore, the EMTs have never had to use an alternate location for veinous access during an execution, much less have the physician perform a cut-down procedure in an execution. (DSUMF ¶¶ 166-67.)

d. The safeguards protect against a paradoxical reaction.

Plaintiff speculates that the Execution Team may administer the midazolam at such a rapid rate that it increases the risk of a "paradoxical reaction" that will cause an inmate to be "aware and sensate" to pain. (D.E. 51, PageID# 2261-62 ¶¶ 618-25, 2266-67 ¶¶ 647-54.) Plaintiff has adduced

no evidence to show this risk is "sure" or "very likely." *Glossip*, 576 U.S. at 877 (quoting *Baze* 553 U.S. at 50). First, the record does not demonstrate that the speed of administration will even cause such an effect. Second, Plaintiff's expert has explained that a paradoxical reaction results in a patient becoming "agitated," "terrified," and "combative" instead of sedated (Van Norman Dep. 115:1-12; Van Norman Rep. at 9), so if an inmate were to experience a paradoxical reaction to the midazolam, the reaction would be manifestly obvious since the inmate would *not* be sedated and the inmate would fail the consciousness check. Thus, if such a paradoxical reaction were to occur, the execution would not proceed until the inmate was properly sedated. (DSUMF ¶¶ 121, 176.) For these reasons, the safeguards in the Protocol suffice to protect against a risk of improper administration of the lethal-injection drugs.

3. The risk of obstruction of breath is not so great a risk of pain that a safeguard is necessary.

Plaintiff alleges that the Protocol is unconstitutional because it lacks safeguards against the possibility of obstruction of breathing, "such as a wedge-shaped cushion." (D.E. 51, PageID# 2260 ¶¶ 613-17.) However, the pain associated with suffocation is not constitutionally cognizable as an Eighth Amendment violation. *See Henness*, 946 F.3d at 290. Regardless, the midazolam will render an inmate unconscious and generally unable to perceive pain even if obstruction of breathing occurs. (DSUMF ¶ 57.) And this minor issue is precisely the sort of "speculative injury" that would require the Court to improperly substitute its "judgment of best practices for each detailed step in the procedure for that of corrections officials." *Cooey*, 589 F.3d at 225; *Baze*, 553 U.S. at 51 (noting that an inmate cannot challenge a method of execution by alleging a "marginally safer alternative" because this would "threaten to transform courts into boards of inquiry charged with determining 'best practices' for executions).

4. The taping of an inmate's hands does not create a risk of pain that requires additional safeguards.

Plaintiff alleges that the practice of taping an inmate's hands and fingers will increase anxiety levels, thereby making it harder for the midazolam to take effect. (D.E. 51, PageID# 2262 ¶¶ 626-30.) The record lacks evidence to support this allegation. And, as this Court has recognized, the "allegedly unexpected use of tape to restrain an inmate's hands" is hardly cause for concern "in the context of an already-litigated protocol that calls for execution staff to 'place arm supports on the gurney and restrain the condemned inmate's arms securely to the gurney.'" *Sutton v. Parker*, No. 3:19-CV-00005, 2019 WL 4220896, at *18 (M.D. Tenn. Sept. 5, 2019) (quoting Protocol at 42), *aff'd on other grounds*, 800 F. App'x 397 (6th Cir. 2020). The State also has several legitimate penological reasons for using the hand and arm restraints required in the Protocol. (DSUMF ¶¶ 158, 171.) The restraints of the inmate's arms and of the inmate's hands provide additional support and stabilization and prevent the inmate from moving in a way that would interfere with access to the arm or with the IV line. (DSUMF ¶¶ 172, 174.) The arm restraints also serve to keep the offender secured on the gurney. (DSUMF ¶ 173.) And the taping of the hands prevents the inmate from making inappropriate hand gestures. (DSUMF ¶ 174.) Finally, as discussed, the Protocol requires a consciousness check to confirm that the midazolam has rendered an inmate unconscious and unable to perceive pain (DSUMF ¶¶ 121, 176); so the Protocol already contains sufficient safeguards to protect against the hypothetical situation in which a taping of the fingers could prevent the midazolam from taking effect.

5. The Protocol contains sufficient safeguards to ensure the preparation of a contingency set of lethal-injection drugs.

The Protocol directs the Execution Team to prepare two sets of lethal-injection drugs: a primary set of red syringes and a backup set of blue syringes. (DSUMF ¶ 257.) Plaintiff alleges

that, if Defendants did not prepare a backup dose of midazolam for the execution of Billy Ray Irick, then there is a risk that the backup set of drugs will not be prepared in future executions. (D.E. 51, PageID# 2263 ¶¶ 631-33.) The record does not clearly show whether the backup midazolam was prepared for the Irick execution. Plaintiff's allegation is immaterial for three reasons.

First, the record does clearly demonstrate that the execution of Irick proceeded without complications. (DSUMF ¶¶ 181-182.)

Second, Plaintiff simply has not shown that a failure to prepare a *backup* set of midazolam has a causal connection to an increased risk of severe pain. *See Cooey*, 589 F.3d at 223-24.

Third, at the subsequent execution of Donnie Edward Johnson, the Execution Team prepared both the primary and backup syringes of midazolam. (DSUMF ¶ 180.) Accordingly, this possible "isolated" occurrence during Irick's execution does not "give rise to an Eighth Amendment violation" because it does not suggest "that the procedure at issue gives rise to a 'substantial risk of serious harm.'" *Baze*, 553 U.S. at 50 (quoting *Farmer*, 511 U.S. at 842); *Cooey*, 589 F.3d at 225 (finding that even "proof[] of medical negligence in the past" is "not sufficient to render a facially constitutionally sound protocol unconstitutional"); *see also Zink v. Lombardi*, 783 F.3d 1089, 1101 (8th Cir. 2015) ("The prospect of an isolated incident does not satisfy the requirement that prisoners adequately plead a substantial risk of severe pain to survive a motion to dismiss their Eighth Amendment claim."); *West*, 519 S.W.3d at 556 (noting that, in a facial challenge to a method of execution, a court should not consider risks of harm that "might occur from a failure to follow the Protocol").

6. The Protocol contains sufficient safeguards to ensure proper transportation and storage of the lethal-injection drugs.

Plaintiff alleges that, if the lethal injections drugs are improperly stored and transported, it would likely affect the efficacy of the drugs, creating a substantial risk of severe pain. (D.E. 51, PageID# 2263-66 ¶¶ 634-46.) Courts have repeatedly found similar allegations about compounded drugs to be too speculative to rise to the level of an Eighth Amendment violation. *See Whitaker v. Collie*r, 862 F.3d 490, 499 (5th Cir. 2017); *Zink*, 783 F.3d at 1101; *Ladd v. Livingston*, 777 F.3d 286, 289 (5th Cir. 2015); *Wellons v. Comm'r, Ga. Dep't of Corr.*, 754 F.3d 1260, 1265–66 (11th Cir. 2014); *Gray v. McAuliffe*, No. 3:16CV982-HEH, 2017 WL 102970, at *14 (E.D. Va. Jan. 10, 2017); *Owens v. Hill*, 758 S.E.2d 794, 802 (Ga. 2014). Nonetheless, the Protocol contains a multitude of safeguards to ensure that lethal-injection chemicals are properly prepared, stored, and transported, and the evidence in the record shows that Defendants have complied and are continuing to comply with these requirements. (DSUMF ¶¶ 189-

a. The safeguards ensure all the drugs are properly prepared.

Under the Protocol, the drugs must be *either* FDA-approved commercially manufactured drugs, *or* compounded preparations prepared in compliance with various applicable standards. (DSUMF ¶ 190.) Currently, the vecuronium bromide is commercially manufactured, and the midazolam and potassium chloride are compounded. (DSUMF ¶ 191.)

As required, the commercially manufactured vecuronium bromide is provided to Defendants by a source that only uses FDA-approved suppliers. (DSUMF ¶ 196.)

With respect to the compounded drugs, the Protocol requires the Pharmacist to compound all drugs in a clean sterile environment in compliance with pharmaceutical standards for identity, strength, quality, and purity of the compounded drug that are consistent with United States

Pharmacopoeia ("USP")[6] guidelines and accreditation Departments and in accordance with applicable licensing regulations. (DSUMF ¶ 190.) In keeping with the Protocol, the Pharmacy is licensed for sterile compounding. (DSUMF ¶ 200.) The Pharmacist is also certified for sterile compounding and compounds the midazolam and potassium chloride in a clean sterile environment consistent with USP guidelines. (DSUMF ¶¶ 201-209.)

Once the midazolam and potassium chloride are compounded, they are placed in sterile vials and a "beyond use date" ("BUD") is printed on the vial, after which the medication is not dispensed or transported for use. (DSUMF ¶ 207.) The Pharmacy also prints other information on the vials including the name of the drug, the concentration, volume, directions on intended use, patient's name, prescription number, instructions for storage (whether to be kept room temperature, refrigerated, or frozen), and quantity in the vial. (DSUMF ¶ 208.) The Pharmacist also arranges third-party testing of the compounded drugs to ensure their potency and sterility. (DSUMF ¶¶ 211-12.)

b. The safeguards ensure that all lethal-injection drugs are properly transported.

The Protocol requires that compounded drugs be transferred, stored, and maintained in accordance with the directions of the Pharmacy. (DSUMF ¶ 213.) TDOC usually receives the compounded drugs approximately one to two weeks before an execution date. (DSUMF ¶ 249.) The compounded drugs are shipped in dry ice with the name of the inmate for whom the vile is ordered on the label, and upon receipt, the Drug Procurer confirms the drugs are still frozen and that no seal has been broken or tampered with. (DSUMF ¶¶ 214-216, 225.) The commercially manufactured vecuronium bromide is wrapped in bubble wrap and sent in a box. (DSUMF ¶ 197.)

[6] The USP standards exist to prevent harm, but failure to follow USP 797 does not necessarily cause harm to a patient. (DSUMF ¶¶ 251-252.)

Upon receipt of either compounded or commercially manufactured drugs, the Protocol requires that a member of the Execution Team and the Warden take the drugs to the armory area of Building 7 at RMSI, where they are stored in the key control section of the armory. (DSUMF ¶ 217.) Consistent with the Protocol's requirements, Warden Mays, a member of the Execution Team, and the Commissioner's designee (the Drug Procurer) all take the lethal-injection drugs into the armory building upon receipt. (DSUMF ¶¶ 194-95, 218-19.) The drugs are stored in the key control section of the armory because that location is where there is the least employee need for access. (DSUMF ¶ 220.)

c. The safeguards ensure that all drugs are properly stored.

Once in the key control section of the armory at RMSI, the drugs are placed in appropriate storage containers. (DSUMF ¶ 221.) The Protocol's instructions for both commercially manufactured and compounded drugs call for the drugs to be stored in unmovable heavy gauge steel containers with security grade locks. (DSUMF ¶ 222.) And in substantial compliance with this, the bacteriostatic water and *commercially manufactured* vecuronium bromide are secured in a cabinet at room temperature. (DSUMF ¶ 223.) The Protocol also directs that *compounded* drugs be stored in accordance with the directions of the Pharmacy. (DSUMF ¶ 224.) Accordingly, the Pharmacy has provided written directions to TDOC for storage of the compounded midazolam, and the storage requirements are the same for the potassium chloride. (DSUMF ¶¶ 226-27.) These directions specify that the compounded drugs have a BUD of 45 days frozen, 3 days refrigerated, and 24 hours at room temperature. (DSUMF ¶ 228.) The temperature range for the compounded drugs to be frozen is from negative 25 to negative 10 degrees Celsius. (DSUMF ¶ 229.) The compounded drugs are to be removed from the freezer to thaw 24 hours before use. (DSUMF ¶¶ 247-48.)

Because the locked steel container discussed in the Protocol does not have the capability to keep the compounded drugs at the temperature provided by the Pharmacy, TDOC stores the compounded midazolam and compounded potassium chloride in a freezer located in the key control section. (DSUMF ¶ 230.) The temperature of the freezer typically is between 1 and 4 degrees Fahrenheit, or negative 17 to negative 15 degrees Celsius. (DSUMF ¶ 231.) There is a thermometer in both the freezer and the refrigerator, as well as an external temperature gauge for the refrigerator. (DSUMF ¶ 231.) A backup generator supplies power to the freezer in case the building or the room containing the freezer loses power. (DSUMF ¶ 231.) TDOC stores the compounded drugs in the freezer until moving them from the freezer to the refrigerator to thaw the day before an execution. (DSUMF ¶ 249.)

An inventory ledger containing a record of the lethal-injection drugs is maintained in the lethal-injection-drug storage area. (DSUMF ¶¶ 235, 237.) The Drug Procurer is responsible for ensuring the compounded drugs are stored and maintained in accordance with the directions of the Pharmacy and keeping the ledger up to date. (DSUMF ¶¶ 232, 235-238, 276.) When transferring a shipment of frozen compounded drugs from the shipping container to the freezer, the Drug Procurer ensures that the temperature of the freezer will maintain the compounded drugs in a frozen state. (DSUMF ¶¶ 232, 235-38.) The Drug Procurer then places the drugs in the freezer and logs the temperature of the freezer and the inventory in the ledger, after which the freezer is closed, locked, and a seal put around the lock. (DSUMF ¶¶ 232-34, 238- 276.) Whenever the drugs are moved to the refrigerator, the temperature is also checked and logged. (DSUMF ¶ 250.)

The Protocol's safeguards also ensure that the lethal-injection drugs are secured and appropriately disposed of. (DSUMF ¶ 235.) The Protocol requires, among other provisions, that each time the sealed storage containers for the drugs are opened a justification for opening the

container is recorded in the ledger; that on a semi-annual basis, the inventory of the lethal-injection drugs is confirmed and noted in the ledger; and that the Warden and the Warden's designee monitor all drugs for expiration dates. (DSUMF ¶¶ 235, 238-40.) While commercially manufactured drugs that are not used in a specific execution can be reused, all unused compounded drugs and expired drugs are discarded. (DSUMF ¶¶ 241-46.) Thus, the Protocol contains safeguards related to the transportation and storage of lethal-injection drugs, and the record demonstrates Defendants comply with the safeguards.

For these reasons, the Protocol's safeguards are sufficient. The record simply does not contain a pattern of severe misbehavior. Indeed, Plaintiff has not even established a causal link between these alleged risks of maladministration and an unconstitutional risk of severe pain. Therefore, the Protocol contains adequate safeguards to protect against the alleged risks of maladministration.

II. Plaintiff Has Failed to Plead and Prove a Feasible, Readily Available Alternative Method of Execution.

If Plaintiff fails the first prong of the *Baze-Glossip* test, that ends the inquiry. Plaintiff's Eighth Amendment challenge fails as a matter of law. *Glossip*, 576 U.S. at 877-78 (noting a challenger must establish *both* that a method of execution will cause unconstitutionally severe pain *and* that there is a viable alternative method). However, should the Court address the second prong, Plaintiff has the burden to "plead and prove a known and available alternative." *Id.* at 880. A multipart framework governs the determination of whether any of Plaintiff's five proposed alternative methods of execution are viable. First, a proposed alternative must be "theoretically 'feasible.'" *Bucklew*, 139 S. Ct. at 1129 (quoting *Glossip*, 576 U.S. at 877-78). Second, the alternative must be available, which means that the State can obtain the chemicals or equipment needed to carry out the alternative "with ordinary transactional effort." *In re Ohio Execution*

Protocol (*Fears v. Morgan*), 860 F.3d 881, 891 (6th Cir. 2017) (en banc). Third, the proposed alternative must be "readily implemented," meaning that the "proposal" for the alternative "must be sufficiently detailed to permit a finding that the State could carry it out 'relatively easily and reasonably quickly.'" *Bucklew*, 139 S. Ct. at 1129 (quoting *Glossip*, 576 U.S. at 877-78, and *McGehee v. Hutchinson*, 854 F.3d 488, 493 (8th Cir. 2017)). Fourth, the proposed alternative must "significantly reduce a substantial risk of severe pain" that Plaintiff would otherwise experience if executed under the Protocol. *Id.* at 1125; *see also In re Fed. Bureau of Prisons' Execution Protocol Cases*, 980 F.3d 123, 135 (D.C. Cir. 2020) ("[I]f all that Plaintiffs can produce at summary judgment is a 'scientific controvers[y]' between credible experts battling between 'marginally safer alternative[s],' their claim is likely to fail on the merits." (quoting *Baze*, 553 U.S. at 51)).

Fifth, Tennessee must lack a "legitimate penological reason" for refusing to adopt the alternative. *Id.* Legitimate penological reasons include but are not limited to the following: (1) the alternative would disrupt "the dignity of the procedure," (2) the alternative would require the participation of individuals whose personal beliefs hinder them from participating, or (3) the alternative would require the State to adopt a novel method of execution that has never been used before. *Bucklew*, 139 S. Ct. at 1125, 1129-30 (quoting *Baze*, 553 U.S. at 57); *see also Johnson v. Precythe*, 954 F.3d 1098, 1102 (8th Cir. 2020) (finding an inmate failed to identify a viable alternative because "nitrogen-induced hypoxia," while a "lawful method" in another state, had not yet been used in an execution), *cert. denied*, 141 S. Ct. 1622 (2021).

A. Plaintiff has not proven the alternative of execution by means of a single bullet to the back of the head.

Plaintiff's first pled alternative to the Protocol is execution by firing "a single bullet to the back of the head in close range." (D.E. 51, PageID# 2213 ¶ 357.) This alternative is not viable for two independent reasons. First, the State has a legitimate penological reason for refusing to

adopt this alternative because there is no proof that any other state has ever adopted it (DSUMF ¶ 278), much less implemented it in carrying out an execution. *Bucklew*, 139 S. Ct. at 1125, 1129. This reason alone is sufficient basis to grant summary judgment in favor of Defendants on this alternative. *Johnson*, 954 F.3d at 1102 (affirming dismissal where the proposed alternative was "an untried and untested method of execution").

Second, firing a single bullet to the back of the head does not "significantly reduce a substantial risk of severe pain" that Plaintiff would otherwise experience if executed under the Protocol. *Bucklew*, 139 S. Ct. at 1125. Plaintiff alleges that this method of execution "damages the brain stem, shutting down breathing and cardiac activity near instantly." (D.E. 51, PageID# 2214 ¶ 361.) But this allegation fails to account for the risk of error accompanying this method of execution. Because of the basic psychological barrier humans have to killing another human, there is an enormous difference between shooting a target and shooting a human. (DSUMF ¶ 320.) Plaintiff's own expert testified that hitting the brain stem with a bullet is difficult because of the small size of the brain stem. (DSUMF ¶ 280.) It is well-documented in trauma literature that pistol bullets striking the human head at certain angles will deflect off the skull without penetration. (DSUMF ¶ 281.)

This allegation also fails to account for the unpredictability of the effect of a gunshot on an inmate. Gunshots to the head produce a large variance in outcomes, including the possibility that the person shot will remain conscious and capable of movement. (DSUMF ¶ 279.) Gunshot wounds also produce large variances in pain because of differences in human anatomy. (DSUMF ¶ 310.) However, a misfired bullet poses a risk of causing an inmate severe pain. (DSUMF ¶ 306.) Due to the risks of error and pain associated with this method of execution, Plaintiff cannot show that this alternative significantly reduces a substantial risk of severe pain, particularly when the

Protocol itself does not pose a substantial risk of severe pain. *See In re Fed. Bureau of Prisons' Execution Protocol Cases*, 980 F.3d at 135 ("[I]f all that Plaintiffs can produce at summary judgment is a 'scientific controvers[y]' between credible experts battling between 'marginally safer alternative[s],' their claim is likely to fail on the merits." (quoting *Baze*, 553 U.S. at 51)).

Plaintiff also alleges that this method of execution is viable because it "bears striking similarities to the firing squad, which is widely considered to be relatively painless." (D.E. 51, PageID# 2214 ¶ 364.) This allegation fails for the reasons in the section below addressing the firing-squad alternative.

B. Plaintiff has not proven the alternative of execution by firing squad.

Plaintiff's second pled alternative to the Protocol is execution by firing squad. (D.E. 51, PageID# 2213 ¶ 357.) This alternative is not viable for three independent reasons. First, the firing-squad alternative cannot be readily implemented. As mentioned above, for an alternative to be "readily implemented," the State must be able to "carry it out 'relatively easily and reasonably quickly.'" *Bucklew*, 139 S. Ct. at 1129 (quoting *Glossip*, 576 U.S. at 877-78, and *McGehee*, 854 F.3d at 493). But execution by firing squad is expensive and requires construction of complex facilities. TDOC does not know where it would begin to address firing squad safety measures and contingencies, including preventing ricochet, how to control confidentiality, the safety and security of the event and facility, securing the offender, and the type of weapon and ammunition. (DSUMF ¶¶ 282-83.) TDOC does not know what the facility requirements are for a firing squad, much less whether the State has facilities where execution by firing squad could occur. (DSUMF ¶¶ 283-86.)

According to Plaintiff's own expert, who partly relied information that is over 60-years old (DSUMF ¶¶ 322-25), the equipment necessary for this method of execution requires construction

of a structure with ballistically resistant windows embedded in ballistically resistant walls, with the marksmanship-trained-and-certified firing squad firing from a ballistically impervious barricade with small firing slits. (DSUMF ¶¶ 317, 319.) It also requires placing the condemned in a chair fixed to a firm platform with a backdrop of heavy lumber, behind which is an absorbent material that slows a bullet down, behind which is a heavy, ballistically impervious blanket. (DSUMF ¶ 318.)

Evidence from Utah, which does conduct execution by firing squad (DSUMF ¶ 287), further demonstrates how costly and time-intensive it would be for Tennessee to adopt this method of execution. According to the Utah Department of Correction ("UDC"), executing someone by firing squad involves a high degree of skill. (DSUMF ¶ 288.) Thirty days prior to a firing squad execution, UDC staff rehearses almost daily, for up to three hours at a time. (DSUMF ¶ 289.) In 2003, Utah estimated that it would take 1,180 "man hours" for UDC to conduct a firing squad execution. (DSUMF ¶ 290.) It cost Utah $1,500,000 to construct its intricately designed firing-squad execution chamber, and it cost Utah $165,000 in 2010 to conduct an execution using a firing squad. (DSUMF ¶¶ 292-302.) Thus, Plaintiff cannot show that an execution by firing squad in Tennessee can be carried out relatively easily and reasonably quickly

Second, this alternative does not "significantly reduce a substantial risk of severe pain" that Plaintiff would otherwise experience if executed under the Protocol. *Bucklew*, 139 S. Ct. at 1125; DSUMF ¶ 303. Plaintiff alleges this method of execution "damages the heart and causes a near-immediate drop in blood pressure, including blood pressure in the brain," resulting in a "loss of consciousness rapidly followed by death." (D.E. 51, PageID# 2219 ¶ 385.) Contrary to what this allegation suggests, execution by firing squad is far more complicated than the simple pulling of a trigger. It is unreliable and poses a substantial risk of pain. For an execution by firing squad to be

effective, a target must be placed precisely over the lower part of the sternum, overlapping the left sternum border, the upper part of the ventricles, the atria, and the other roots. (DSUMF ¶ 311.) Wind and rainfall can negatively affect a shooter's ability to aim at or hit a target. (DSUMF ¶ 312.) A rifle's sight can be bumped out of alignment. (DSUMF ¶ 313.) A firing squad could be supplied with faulty rounds of ammunition for an execution. (DSUMF ¶ 314.) And, as mentioned, with the preceding alternative, there is an enormous difference between shooting a human and shooting a target because of the basic psychological barrier humans have to killing another human. (DSUMF ¶ 320.) So, death by firing squad could fail due to human error. (DSUMF ¶ 321.)

The pain that would likely result from such a method of execution, even without human error, should not be underestimated. A gunshot delivered to 80 percent of the chest will not produce anything close to cardiovascular incapacitation, which is necessary for an effective execution by firing squad. (DSUMF ¶ 315.) A person may remain conscious or even mobile after receiving a fatal gunshot wound despite a shredded heart. (DSUMF ¶¶ 304-05.) It is a proven possibility that this may occur in the context of an execution by firing squad because some people have survived an initial volley of bullets in a firing-squad execution, leading to a second volley of bullets. (DSUMF ¶ 309.) Indeed, in Utah, after the firing squad fires its first volley, there is a *three-minute waiting period* before a doctor checks to see if the inmate is still alive. (DSUMF ¶ 302.)

Even after a gunshot wound sufficient to cause cardiovascular incapacitation, brain death will not occur immediately and instead can take minutes after loss of oxygen to the brain. (DSUMF ¶¶ 316; *see also* DSUMF ¶ 304-05.) But, in the interim before death, the person may experience severe pain due to the location of the gunshots. Firing bullets into the chest could result in the fracture of a rib, the sternum, or the spine. (DSUMF ¶ 307.) And a bullet that fractures a bone or

damages the spinal cord is severely painful. (DSUMF ¶¶ 307-08.) In light of the risks of error and pain associated with this method of execution, Plaintiff cannot show that this alternative significantly reduces a substantial risk of severe pain, particularly when the Protocol itself does not pose a substantial risk of severe pain. *See In re Fed. Bureau of Prisons' Execution Protocol Cases*, 980 F.3d at 135; *McGehee*, 463 F. Supp. 3d at 915-16 (considering the bench-trial testimony of the experts for the death-row-inmate plaintiffs and finding that the plaintiffs failed to prove an execution by firing squad would be substantially less painful than an execution using midazolam, vecuronium bromide, and potassium chloride). Perhaps this is why Plaintiff's firing squad expert previously acknowledged lethal injection as the most humane method of deliberately ending a person's life. (DSUMF ¶ 11.)

Finally, this alternative is not viable because the State has a legitimate penological reason not to adopt it: using this method of execution could result in harm to others. *Bucklew*, 139 S. Ct. at 1125, 1129-30. Even after constructing the ballistically impervious structure and taking all the safety precautions described above, this alternative can *still* result in a possibility that a bullet ricochets and injures someone other than the condemned, such as a member of the firing squad or an execution witness. (DSUMF ¶ 317.)

For these reasons, Defendants are entitled to summary judgment on this alternative.

C. Plaintiff has not proven the alternative of execution by means of the oral administration of either secobarbital or a combination of midazolam, digoxin, morphine sulfate, and propranolol.

Plaintiff's third pled alternative includes execution by oral administration of either secobarbital or an "oral cocktail" of "midazolam, digoxin, morphine sulfate, and propranolol." (D.E. 51, PageID# 2223 ¶¶ 399, 401.) These two alternatives are not viable for four reasons.

First, the State has a legitimate penological reason for refusing to adopt these two alternatives because the record does not reflect that any other state has adopted an oral cocktail as a method of execution, much less carried out an execution using this method. (DSUMF ¶ 327.) This reason alone is sufficient basis to grant summary judgment in favor of Defendants on this alternative. *Johnson*, 954 F.3d at 1102 (affirming dismissal where the proposed alternative was "an untried and untested method of execution").

Second, the record lacks *any* evidence that Defendants can obtain secobarbital, digoxin, morphine sulfate, and propranolol for use in executions through ordinary transactional effort. (DSUMF ¶ 326.) In the absence of this evidence, Plaintiff cannot carry his burden of proof to show that these alternatives are "available." *Fears*, 860 F.3d at 891.

Third, the record does not show that these two alternatives "significantly reduce a substantial risk of severe pain" that an inmate would otherwise experience if executed under the Protocol. *Bucklew*, 139 S. Ct. at 1125. Indeed, Plaintiff did not even retain experts to testify regarding the effectiveness of either alternative. (DSUMF ¶ 327.)

With respect to oral cocktails generally, the record shows the administration of such drugs poses a serious risk of pain. Most individuals who consume aid-in-dying cocktails have severe conditions that make them sensitive to medication, but even they have survived up to 104 hours after ingestion, and frequently take over an hour to die. (DSUMF ¶¶ 340-42.) Some even regain consciousness and recover without dying. (DSUMF ¶ 343.)

Oral administration of drugs to uncooperative inmates requires administration through a nasogastric tube. (DSUMF ¶ 329.) Nonmedical personnel do not place nasogastric tubes. (DSUMF ¶¶ 337-38.) Placement of a nasogastric tube without a topical anesthetic causes pain. (DSUMF ¶ 330.) Indeed, even with topical anesthesia, placement of a nasogastric tube causes

pain. (DSUMF ¶ 331.) Placement of a nasogastric tube also comes with a multitude of associated risks—it can cause bleeding, gagging, vomiting, perforation of the nasopharynx and esophagus, nosebleed, placement into the trachea, placement into the cranial vault, and damage to nasal passages. (DSUMF ¶¶ 332, 339.) And the risk of complications would be exacerbated when placing the tube in an uncooperative inmate. (DSUMF ¶ 333.) Furthermore, administering an oral cocktail through an improperly placed nasogastric tube would be very uncomfortable for an inmate. (DSUMF ¶¶ 334-36.) Because of the lack of information in the record about the efficacy of the pled alternatives as well as the risk of pain generally associated with administration of these oral cocktails, Plaintiff cannot show that these alternatives significantly reduce a substantial risk of severe pain, particularly when the Protocol itself does not pose a substantial risk of severe pain. *See In re Fed. Bureau of Prisons' Execution Protocol Cases*, 980 F.3d at 135.

D. Plaintiff has not proven the alternative of execution by means of a two-drug lethal injection protocol of midazolam and potassium chloride.

Plaintiff's fourth pled alternative to the Protocol is omission of vecuronium bromide from the Protocol, which would result in injection of the exact same quantities of midazolam and potassium chloride in the Protocol. (D.E. 51, 2226 ¶ 417-18.) This alternative is not viable for three reasons. First, Defendants have a legitimate penological reason for refusing to adopt this alternative because there is no evidence any other state has adopted it, much less used it to carry out an execution. *Bucklew*, 139 S. Ct. at 1125, 1129. This reason alone is sufficient basis to grant summary judgment in favor of Defendants on this alternative. *Johnson*, 954 F.3d at 1102 (affirming dismissal where the proposed alternative was "an untried and untested method of execution").

Second, this alternative does not "significantly reduce a substantial risk of severe pain" that an inmate would otherwise experience if executed under the Protocol. *Bucklew*, 139 S. Ct. at 1125.

Plaintiff alleges that omission of vecuronium bromide would "[e]liminat[e] the substantial risk of severe pain and suffering caused by suffocation via vecuronium bromide." (D.E. 51, PageID# 2226 ¶ 416.) But the discomfort of suffocation is not unconstitutionally severe pain. *See Henness*, 946 F.3d at 290. Plaintiff also alleges that omission of vecuronium bromide will avoid "needlessly increas[ing]" the risk that an execution will continue even as an inmate is sensate to the pain and suffering caused by potassium chloride. (D.E. 51, PageID# 2226 ¶ 422.) But, as discussed above, for Plaintiff to raise this alternative, he must presume that midazolam can prevent an inmate from experiencing the pain resulting from potassium chloride. And, because midazolam can prevent an inmate from experiencing this pain, the paralytic effect of the vecuronium bromide is inconsequential.

Finally, Defendants have additional legitimate penological reasons for refusing to adopt this alternative. Without the paralytic effect of vecuronium bromide (DSUMF ¶ 109), an unconscious inmate might still move around due to autonomous movement caused by the spinal cord. (DSUMF ¶¶ 18-20.) The inmate may cough, chew, thrash, strain, gurgle, snore, or hiccup all while remaining unconscious. (DSUMF ¶¶ 19-22, 29.) However, even though the inmate would be unconscious (DSUMF ¶¶ 13-23, 25-28, 42-52, 55-57, 61-62, 94-97, 112, 114), these movements may lead observers to the erroneous conclusion that the inmate is conscious. The Sixth Circuit has recognized that such a misinterpretation of the inmate's condition would disrupt the dignity of the proceeding, and therefore, Defendants have legitimate bases for using a paralytic. *Fears*, 860 F.3d at 889 (citing *Workman*, 486 F.3d at 909).

Defendants also have the legitimate concern that removing the paralytic would remove a component of the Protocol that hastens death. (DSUMF ¶ 108.) As discussed previously, the paralytic effect of vecuronium bromide halts breathing. (DSUMF ¶¶ 107-11, 113-14.) Because

of this paralysis, vecuronium bromide could kill an inmate before administration of potassium chloride. (DSUMF ¶ 111.) Thus, removing the paralytic would remove part of the Protocol that causes death.

E. Plaintiff has not proven the alternative of execution by means of pentobarbital.

Plaintiff's final pled alternative to the Protocol is execution by injection of pentobarbital. (D.E. 51, PageID# 2227 ¶¶ 430-31.) Pentobarbital is not available for use in Tennessee executions. (DSUMF ¶¶ 344-53.) In fact, Plaintiff outright denies knowledge of any source willing to provide pentobarbital or the active pharmaceutical ingredient necessary to compound pentobarbital for use in Tennessee executions. (DSUMF ¶¶ 344, 353.)

Plaintiff, who must plead and prove a feasible and readily available alternative, has produced no evidence to support his allegation that pentobarbital is available to TDOC for use in executions. *Glossip*, 576 U.S. at 879-80. Instead, Plaintiff alleges pentobarbital is available because "other states" have access to it. (*Id.* at 2228-29 ¶¶ 435-38.) However, the fact that other states have access to pentobarbital does not mean it is available for use in Tennessee. *Fears*, 860 F.3d at 891. And Plaintiff has not produced *any* evidence that the sources providing pentobarbital to other states would also be willing to provide it for use in Tennessee executions. (DSUMF ¶ 345.)

Plaintiff suggests that Defendants simply have not tried hard enough to obtain pentobarbital. (D.E. 51, PageID# 2229-34 ¶¶ 442-78.) But the Tennessee Supreme Court already found similar arguments unavailing: "Common sense and logic clearly dictate that TDOC would utilize pentobarbital if the drug could be secured, given that TDOC recently spent three and one-half years successfully defending the one-drug protocol in *West v. Schofield*." *Abdur'Rahman*, 558 S.W.3d at 624 n.21. Furthermore, even though Defendants continue to search for

pentobarbital (DSUMF ¶¶ 346-352), they have no obligation to do so because it is no longer the method of execution used in Tennessee. *Abdur'Rahman*, 558 S.W.3d at 611, 616. More importantly, this entire argument "is a red herring" because the burden of proof to show that an alternative is available is on Plaintiff, not Defendants. *Id.* at 625 n.22.

Finally, Plaintiff alleges pentobarbital is available from various sources in the United States and abroad. (D.E. 51, PageID# 2229-34 ¶¶ 442-78.) The testimony in the record, however, shows that pentobarbital remains unavailable for use in Tennessee executions. (DSUMF ¶¶ 344-53.) And Plaintiff has not produced any evidence to the contrary demonstrating that pentobarbital is available. (DSUMF ¶ 345.)

Thus, Plaintiff has not carried his burden under the second prong of the *Baze-Glossip* test to prove a viable alternative to Tennessee's method of execution.

CONCLUSION

For the reasons stated, summary judgment should be granted to the Defendants.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that on March 16, 2022, a copy of the foregoing was filed and served via the Court's CM/ECF system on the following:

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